

ATTACHMENT 8 - QUALITY ASSURANCE

This application includes appropriate and well-defined quality assurance and quality control measures, as described below:

General

- Periodic proposed meetings (at least every two months) will be conducted to verify project findings with District staff and the engineering consultant.
- Progress reports will be provided to DWR for review and comment regarding project status.
- The Final Project Report will be stamped by a Professional Engineer and Professional Geologist.
- All work will be performed under the supervision of, and reviewed accordingly by, a Professional Engineer, Professional Geologist or Certified Hydrogeologist.

Legal Issues

- The District legal counsel will review and provide comments on the specifications, bidding documents and permit applications.

Groundwater Monitoring Committee

- A Groundwater Monitoring Committee, comprised of local landowners, will meet at least two times during the grant and offer comments and criticism on the project.

Board of Directors

- The District Board of Directors, comprised of local landowners, will be updated monthly on the project and be given the opportunity to provide comments, suggestions and criticisms.
- The public will be afforded the opportunity to comment on the project at Board meetings, which are open to the public.

Monitoring Wells

- Well construction will be performed under contract by a licensed and experienced well driller, in accordance with specifications prepared by a licensed engineer or geologist.
- Wells will be constructed by drillers with a C-57 well driller's license.

- Well construction will be overseen by a Professional Engineer or Professional Geologist.
- Survey of the wells will be overseen by a Licensed Land Surveyor.
- Well construction will follow California Well Standards - Bulletin 74-90 (Supplement to Bulletin 74-81) prepared by the California Department of Water Resources.
- Well construction will follow standard well construction procedures (the specifications will be developed as part of the grant funded efforts).
- Soils will be logged by a Professional Geologist according to standard logging procedures.
- Well casing will require polyvinyl chloride (PVC) pipe than conforms to ASTM D1785-12 (Standard Specifications for PVC Plastic Pipe, Schedules 40,80 and 120)
- OSHA health and safety standards will be required during well construction.

Water and Soil Sampling

- Groundwater quality monitoring will be conducted in compliance with the Groundwater Quality Monitoring Act of 2001 (Part 2.76 commencing with Sec. 10780 of Division 26 of the CWC).
- Water quality sampling will follow standard monitoring protocols documented in the KCWD GMP (Appendix E in **Exhibit 3.2** of this application).
- Water quality testing will be performed by accredited, experienced, state-certified testing laboratories to ensure appropriate testing methods and chain of custodies.
- Field blank and duplicate samples will be collected, as described in the Work Plan.
- All water quality results will be reviewed by an experienced water quality specialist.

Technical Review

- All work performed on the study will be reviewed by senior staff before submission to DWR.
- Review comments on a Draft Report, and possibly some interim submittals, will be solicited, and incorporated when merited, from the DWR, Groundwater Monitoring Committee, District Board members, Kings River Area Property Owners Association, the general public, and other pertinent agencies.
- Dr. Kenneth D. Schmidt & Associates, an independent geologic consultant and licensed geologist with more than 40 years of experience, will review the selected locations and designs for the monitoring wells, and provide an important, independent, third-party review. Dr. Schmidt's involvement will be one of the most important quality assurance efforts.

Project Team

An organization chart for the project is shown as **Figure 8.1**. This figure shows DWR, KCWD staff and technical consultants.

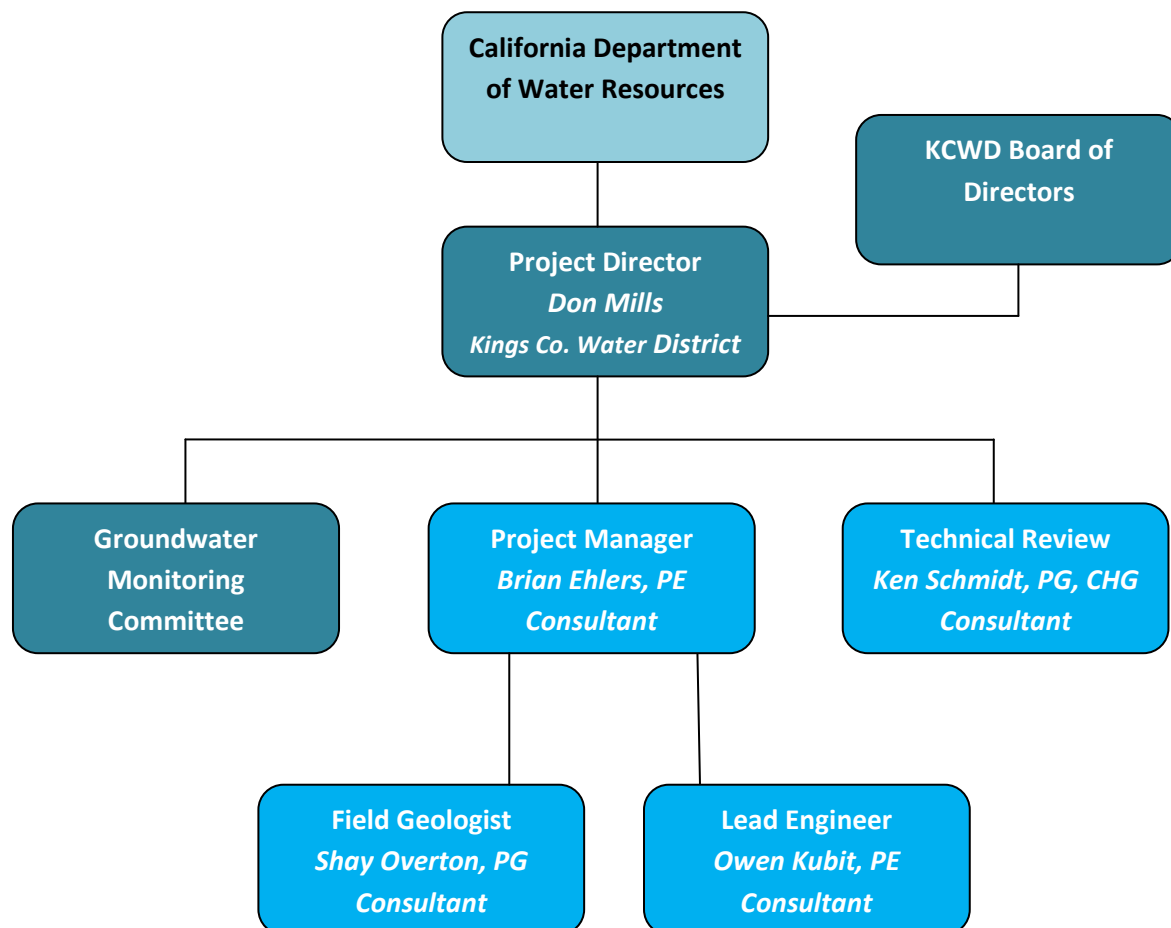


Figure 8.1 – Project Organization Chart

Principal staff working on the project have the qualifications and skills to successfully complete the work. All of the team members have experience with groundwater projects in the Kings County Water District. A brief description of the major project team members follows:

KINGS COUNTY WATER DISTRICT

Don Mills – Project Director

Don Mills has been the General Manager of the Kings County Water District for more than 10-years. Mr. Mills has been actively involved in the development of groundwater



recharge, groundwater banking, production well, and monitoring well facilities in KCWD. As general manager of a water district, Mr. Mills has extensive project management experience and will help ensure the project is completed on time and on budget. Mr. Mills is also involved with several other local and regional water management agencies and is currently the Board President for the Kaweah Delta Water Conservation District, Lakeside Water Irrigation District, and Kaweah River Power Authority.

PROVOST & PRITCHARD CONSULTING GROUP

Brian Ehlers, PE - *Project Manager*

Mr. Ehlers is a principal water resources engineer with 29-years experience. Mr. Ehlers has served as the District Engineer for KCWD since 1994. Mr. Ehlers has overseen numerous improvements to the groundwater infrastructure and groundwater management in KCWD over the past 18 years. Mr. Ehlers has a BS and MS in Civil Engineering and is a Professional Civil Engineer (No. C40655) in California.

Owen Kubit, PE - *Lead Engineer*

Mr. Kubit is a senior water resources engineer with more than 17-years experience in the planning, design, and construction of water resources projects. Mr. Kubit has an interdisciplinary background in both water resources engineering and geology. Mr. Kubit was the primary author for the Kings County Water District Groundwater Management Plan, and the lead design engineer for several nested monitoring wells in KCWD. Mr. Kubit has a BS and MS in Civil Engineering, an MS in Geology, and is a Professional Civil Engineer (No. C66552) in California.

Shay Overton, PG - *Field Geologist*

Mr. Overton has more than 7-years experience as a geologist. He has worked on numerous groundwater projects involving subsurface investigations, monitoring wells, and production wells. He is familiar with the geology in the Kings County Water District, and has been involved with their monitoring program for several years. Mr. Overton has a BS and MS in Geology, and is a Professional Geologist (No. 8424) in California.

KENNETH D. SCHMIDT AND ASSOCIATES

Kenneth D. Schmidt, PhD, PG, CHG - *Independent Technical Review*

Dr. Kenneth Schmidt has more than 40-years experience as a consulting hydrogeologist and has worked on hundreds of projects in the San Joaquin Valley. Dr. Schmidt has assisted with several groundwater monitoring and evaluation projects in the KCWD. Dr. Schmidt has a BS in Geology, an MS and PhD in Hydrology, and is a Professional Geologist (No. 1578) and Certified Hydrogeologist (No. 176) in California.